

REPORT DOCUMENTATION PAGE

Form Approved

OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 25 March 1996		3. REPORT TYPE AND DATES COVERED SSC Fellow Research Paper	
4. TITLE AND SUBTITLE National Guard in Disaster Relief Operations - Hurricane Iniki (6 September - 6 November 1992) - A Case Study				5. FUNDING NUMBERS	
6. AUTHOR(S) MIYAGI, VERN T., LTC, USA					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U. S. Army War College Root Hall, Bldg 122 Carlisle, Barracks Carlisle, PA 17013-5050				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) University of Pittsburgh Matthew B. Ridgway Center for International Security Studies 4G23 Forbes Quadrangle, Pittsburgh, PA 15260				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release: distribution is unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) During the period from 6 September to 6 November 1992, the Hawaii National Guard (HING) participated in joint disaster relief operations on the island of Kauai after Hurricane Iniki. The devastation was the worst ever recorded in Hawaii and at the time, ranked as the third worst natural disaster ever to strike the United States. The purpose of this paper is to familiarize the reader with the civil-military role of the National Guard (NG) in domestic emergencies. Using the Iniki disaster as a case study, it examines the unique state mission of the NG and the conditions under which it is employed. Using the HING as an example, the paper covers the organization of the NG within a state and reviews its capabilities in disaster response. The paper also provides an overview of the roles of the state, Federal Emergency Management Agency (FEMA), the active component military, and other agencies in a domestic disaster after a federal emergency is declared. Finally the paper shares some of the significant lessons learned by the HING, state, and federal organizations.					
14. SUBJECT TERMS				15. NUMBER OF PAGES	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified		18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	
20. LIMITATION OF ABSTRACT					

19960722 013

USAWC RESEARCH PAPER
FOR AWARDS COMPETITION PROGRAM
PERSONAL EXPERIENCE MONOGRAPH CATEGORY

***THE NATIONAL GUARD IN DISASTER RELIEF OPERATIONS
HURRICANE INIKI (6 September - 6 November 1992)
A Case Study***

by

Lieutenant Colonel Vern T. Miyagi

United States Army

Dr. Donald M. Goldstein
Project Advisor

DISTRIBUTION STATEMENT A: Approved for public
release. Distribution is unlimited.

Matthew B. Ridgway Center for International Security Studies
University Center for International Studies
University of Pittsburgh
4G23 Forbes Quadrangle, Pittsburgh, PA 15260

The views expressed in this paper are those of
the author and do not necessarily reflect the
views of the Department of Defense or any of
its agencies. This document may not be
released for open publication until it has
been cleared by the appropriate military
service or government agency.

ABSTRACT

AUTHOR: Vern T. Miyagi (LTC), USA

TITLE: The National Guard in Disaster Relief Operations
Hurricane Iniki (6 September - 6 November 1992)
A Case Study

FORMAT: Research Paper For USAWC Awards Program (Personal Experience
Monograph Category)

DATE: 2 April 1996 **PAGES:** 21 (Including figures, end notes,
and bibliography)

CLASSIFICATION: Unclassified

OTHER: Word count - 5,802 (excludes graphics in figures 3 and 4)

During the eight-week period from 6 September 1992 through 6 November 1992, the Hawaii National Guard (HING) participated in a joint disaster relief operation on the island of Kauai as a result of a direct hit by Hurricane Iniki. The devastation caused by Iniki, a category 4 hurricane, was the worst ever recorded in the state of Hawaii and at the time, was classified as the third worst natural disaster ever to strike the United States.

The purpose of this paper is familiarize the reader with the civil-military role of the National Guard (NG) in domestic disasters. Using the HING disaster relief operations for Hurricane Iniki as a case study, it examines the unique state mission of the NG and the conditions under which it is employed. Using the HING as an example, the paper goes on to cover the organization of the NG within a state and reviews its capabilities in responding to disaster missions. The paper also provides an overview of the roles of the state emergency management departments, the Federal Emergency Management Agency (FEMA), the active component (AC) military, and other relief agencies in a domestic disaster after a federal emergency is declared. Finally, the paper documents some of the significant lessons learned by the HING, state, and federal organizations from Operation Iniki.

The author served as the ground operations officer for the HING Joint Task Force that deployed to Kauai to conduct relief operations.

***THE NATIONAL GUARD IN DISASTER RELIEF
OPERATIONS
HURRICANE INIKI
(6 September – 6 November 1992)
A Case Study***

VERN T. MIYAGI

“The structure of the military chain of command and the discipline and training of the military proved to be invaluable for disaster response (their) presence lifted the morale of the people of Kauai. We are so grateful.”

-- Joanne Yukimura, Mayor of Kauai, before the Honolulu Chamber of Commerce, 17 November 1992.

“Sh_t Happens Be Flexible!”

-- Local Guidance Posted at the Hawaii National Guard (HING) Joint Task Force (JTF) Emergency Operations Center (EOC), Lihue, Kauai, September-November 1992.

INTRODUCTION

During the eight-week period from 6 September to 6 November 1992, the Hawaii National Guard (HING) conducted joint disaster response operations on the island of Kauai after a direct strike by Hurricane Iniki. Iniki was a category 4 hurricane when it hit Kauai in the afternoon of 11 September 1992. The devastation was the worst ever recorded in the state of Hawaii and at the time, ranked as the third worst natural disaster in the United States.¹ At the peak level of operations in mid September 1992, nearly 3,300 National Guard (NG) personnel (including 252 from other states), 3,600 active component soldiers, sailors, airmen, and marines, the Federal Emergency Management Agency (FEMA), the American Red Cross (ARC), the Small Business Administration (SBA), the Army Corps of Engineers, and numerous non-governmental organizations (NGO) were heavily involved in the relief effort on Kauai.

The purpose of this paper is to familiarize the reader with the civil-military role of the NG in domestic disasters. Using the HING disaster relief operations during Hurricane Iniki as a case study, it examines the unique state mission of the NG. Using the HING as an example, the paper goes on to cover the organization of the NG within a state and reviews its capabilities in responding to disaster missions. The paper also provides an overview of the roles of state emergency management departments, the Federal Emergency Management Agency (FEMA), the active component (AC) military, and other relief agencies, in a domestic disaster after a Federal emergency is declared. Finally, the

paper shares some of the significant lessons learned by the Hawaii National Guard (HING), state, and federal organizations from Operation Iniki. Figure 1 provides a list of acronyms and abbreviations used in this paper.

THE NATIONAL GUARD AND DISASTER RESPONSE

Mission and Role²

As the largest military reserve component of the United States, the NG is unique in that it has two separate missions. Its ***Federal mission*** is to maintain properly trained and equipped units available for prompt mobilization for war, national emergency, or as otherwise needed. Its ***State mission*** is to provide trained and disciplined forces for domestic emergencies or as otherwise required by state law.

Although the NG is the first military responder to any state disaster,³ it is normally called up only after all other state and local assets have or will soon be exhausted.⁴

The Hawaii National Guard (Case Study Example)

The HING is used in the following sections to illustrate a typical state NG organization, its response capabilities, and its training for disaster support. NG units in other states and territories have similar organizations and capabilities but differ in size and unit compositions.

Organization:⁵ The HING is organized into two major operational components. The army component is the Hawaii Army National Guard (HIARNG) and the air force component is the Hawaii Air National Guard (HIANG). The HING is a separate department of the State of Hawaii Department of Defense (DOD) which also includes State of Hawaii Civil Defense (SCD) and the Office of Veterans Affairs. The Adjutant General of the State of Hawaii is a cabinet level official who is in charge of the state DOD. In that capacity, he has a dual-role as the commander of the HING and as the Director of SCD.

The major commands of the HIARNG are the 29th Infantry Brigade (Separate) and the Troop Command. The separate infantry brigade is composed of three infantry battalions (Bn),⁶ a field artillery Bn, a forward support Bn, and a brigade (Bde) headquarters, which includes a combat engineer company, a Military Police (MP) company, signal detachment,

LTC Vern T. Miyagi was the ground operations officer for the Hawaii National Guard Joint Task Force that deployed to the island of Kauai for relief efforts during Operation Iniki. He has been the battalion commander of 2-299th Infantry (HIARNG) and the Plans, Operations, and Military Support Officer (G3 Section) and Comptroller in the Headquarters, State Area Command, HIARNG. He has also served in the 100-442 Infantry (USAR). LTC Miyagi holds a bachelor's degree and a master's degree from the University of Hawaii and is a graduate of the U. S. Marine Corps Command and Staff College in Quantico, Virginia. He is presently assigned to the U. S. Army War College Fellowship Program with duty at the Ridgway Center for International Security Studies at the University of Pittsburgh.

and other smaller support and administrative units.

The Troop Command is composed a service and support Bn, an attack helicopter Bn, an engineer detachment, and a headquarters section.

The Major commands of the HIANG are the 154th Composite Group (COMPG) and the 201st Combat Communications Group (CCGP). The 199th Weather Flight (WF) is a separate unit that provides support to both commands. The 154th COMPG consists of a F-15 fighter squadron (FS), a consolidated aircraft maintenance squadron (CAMS), a mission support squadron (MSS), a civil engineering squadron (CES), an air control squadron (ACS), a tactical hospital, a security police flight (SPF), and other smaller support units.

The 201st CCGP consists of two aircraft control and warning squadrons (ACWS), three combat communications squadrons (CCS), two air traffic control flights (ATCF), and other smaller support units.

Capabilities: Like all NG units, the HING capabilities for disaster response are based on its capabilities for its Federal war-time mission.⁷ The command and control, communications, logistics, transportation (surface and air), security, medical, engineer, power-generation, and other operational requirements necessary to accomplish the HING's war-time mission are directly applicable to the requirements of its domestic response mission.

Training for Disaster Response: In general, the HING training program to accomplish its Federal war-time mission, as defined by the mission essential task lists (METL) for each unit, also serves to prepare the HING for its domestic response missions. Specific training for military support to civil authorities (MSCA) operations includes joint disaster response and civil disturbance exercises with State Civil Defense (SCD), county, FEMA, and active military representatives. Prior experience in actual disasters, such as floods, volcano eruptions, hurricanes, high surf, and wild fires also provide the HING with on-the-job expertise and training.

STATE ORGANIZATION FOR DISASTER RESPONSE

State of Hawaii Civil Defense (Case Study Example)

In Hawaii, State Civil Defense (SCD) is the lead agency for disaster response. The Adjutant General of the state of Hawaii is the Director of SCD as well as the commander of the HING. As the Director of SCD, the Adjutant General is directly responsible for disaster planning, preparation, mitigation, and relief efforts for any disasters within the state. He has the authority to mobilize and employ all necessary state assets in responding to state emergencies. The mayors of each county are Deputy Directors of Civil Defense and have the same authority and responsibilities for their respective jurisdictions.

In a disaster event, depending on the nature and extent of damage, the Adjutant General advises the Governor on the need for a state emergency declaration. Once the Governor signs a declaration the soldiers and airmen of the HING deploy to support the state response.

FEDERAL ORGANIZATION FOR DISASTER RESPONSE

If the level of destruction is greater than the state can handle on its own, even with the call-up of the NG, the Governor calls the President of the United States for assistance and requests a Presidential disaster declaration. Once the President signs the declaration, the FEMA becomes directly involved and is responsible for coordinating all Federal support to the state. A Federal Coordinating Officer (FCO) is appointed to coordinate the required support with the State Coordinating Officer (SCO) from the state emergency management agency. In addition, a Defense Coordinating Officer (DCO) is appointed to provide Federal military support to the FCO.⁸ See figure 2 for the coordination flow chart used during Operation Iniki.

The support from FEMA is organized into twelve emergency support functions (ESF). These functions are transportation, communications, public works/engineering, fire-fighting, information/planning, mass care, resource support, health and medical, urban search and rescue, hazardous materials, food, and energy.

Having examined the roles and capabilities of the NG and reviewed the state and Federal organizations for disaster response, the paper will now use a case study of Operation Iniki to see how these organizations functioned in an actual disaster event.

OPERATION INIKI - A CASE STUDY

This case study provides an overview of the hurricane hazard in Hawaii, summarizes the major events, details HING preparation and relief operations, reviews the roles of the Federal and state organizations and reviews the lessons learned from the event.

The Hurricane Hazard to the State of Hawaii

The state of Hawaii faces a continuing threat from hurricanes and tropical storms during the Pacific hurricane season, which runs from 1 June to 30 November.⁹ Ranging from tropical depressions through tropical storms to full-blown hurricanes, these systems assemble in warm waters off the coasts of Baja, California and Central America and move in a westerly heading, between 10 degrees and 20 degrees north latitudes.¹⁰

Event Summary

Iniki ("Piercing Winds" in the Hawaiian language) was a category 4 (Saffir-Simpson Scale) hurricane with sustained winds of 145 miles per hour and gusts recorded at 227 miles per hour when it narrowly missed the island of Oahu and struck Kauai on the afternoon of Friday, 11 September 1992.¹¹ The eye of the storm passed near the southern coastal town of Hanapepe and continued on through the center of the island. See figure 3 for the storm track of Iniki¹² and figure 4 for a map of Kauai.

Based on initial damage reports, Governor John Waihee, Jr. declared a state emergency and requested a Federal disaster declaration from President Bush. At 0315 the next day, Saturday, 12 September 1992, President Bush signed a presidential disaster declaration for Hawaii, thereby authorizing FEMA to provide Federal assistance to the state.

At approximately 0700 hours, the first HING soldiers, from the 2-299th Infantry of the island of Hawaii, began arriving on Kauai aboard Air National Guard, U. S. Coast Guard, and civilian aircraft. Within 24 hours of the hurricane, approximately 800 HING soldiers and airmen were on the island of Kauai, providing security, power generation, medical, communications, transportation, airlift, and logistical support to its people.

Over the next eight weeks, HING operations consumed 42,181 man-days and included missions such as debris clearance, service center operations, airlift, airport operations, communications, power generation, security, command and control, medical, shelter, food and water distribution, and primary election support. At the peak level of operations during September 1992, nearly 3,100 HING members were fully involved. By the end of the mission, 62.1% of the entire HIARNG and 66.0% of the entire HIANG had participated in Operation Iniki.¹³ Military involvement also included 252 NG members from other states and nearly 3,600 active component (AC) soldiers, sailors, airmen, and marines from units stationed in Hawaii.¹⁴

Operation Iniki officially ended for the HING JTF on 6 November 1992 when the remaining members of the JTF were redeployed to their home stations.

Scope of Damage¹⁵

Over 70% of the island suffered significant damage from the hurricane. Roof damage was the most common problem throughout the island. Approximately 5,000 power distribution poles were down resulting in the complete destruction of the power and telephone grids on the island. Electric pumps to the island's main source of water, underground artesian wells, were not operating. Approximately 14,000 homes were damaged with 5,000 structures severely battered or destroyed. Many luxury hotels near the beaches were heavily damaged by the high winds and storm surges. Thousands of tourists were stranded on the island without food, water, power, and shelter. Nearly 7,000 residents were homeless and another 8,000 were in need of food and water. Three people were killed and the initial damage was estimated at \$1.6 billion. The control tower at Lihue Airport was heavily damaged and its communication system inoperable.

HING Relief Operations¹⁶

The following sections summarize actions taken by the HING to prepare for the storm and actual missions executed by the HING JTF on Kauai.

Preparation Actions: HING units on all islands secured equipment, vehicles, and facilities. Vehicles were fueled and water trailers were topped off with potable water. Generators were fueled and tested and mobile radios were prepared for use. HING aircraft evacuation and sheltering contingency plans for fixed and rotary wing aircraft were implemented.

HIANG aircraft control and warning units and the 199th Weather Flight provided continuous updates on the storm track to the SCD Emergency Operations Center (EOC). The HING EOC, located in Honolulu, was activated and prepared for 24-hour operations. COL Edward L. Correa, Jr., deputy commander of the HIARNG, was designated as the HING Joint Task Force (JTF) commander.

On Friday morning, 11 September 1992, major HING units, including the 29th Bde (Sep), Troop Command, 154th Composite Group, 201st Combat Communications Group,

and the HQ, STARC were mobilized and prepared to support relief operations on Kauai. Mobilized HING members assembled at their armories to prepare for deployment. Airlift coordination between the HING, U. S. Coast Guard, and the two commercial airlines to move HING soldiers from the other islands to Kauai was also completed.

Security: The first mission assigned to HIARNG units on Kauai was that of security. The lack of power and looting were serious initial concerns for county officials. Soldiers of 2-299th Infantry were deployed to the main communities and provided support to local law enforcement officers with a combination of stationary posts, roving foot patrols, and vehicular patrols. The HIARNG soldiers were under the tasking control and supervision of the local police.¹⁷

On 14 September, soldiers of 1-299th Infantry, from Oahu, Maui, and Molokai, arrived to reinforce the 2-299th Infantry in the security missions. Also arriving to provide security at the Lihue Airport were the MP Company from the 29th Bde Headquarters and the 154th Security Flight from the HIANG.

HIARNG soldiers were initially equipped with individual weapons, riot batons, face shields, armored vests, and a basic load of ammunition. After the first day, individual weapons and ammunition were withdrawn and secured when it became clear that the potential for looting and violent confrontations was minimal. The citizens of Kauai were too busy helping each other and cleaning up their island.

Command, Control and Communications (C3): Prior to the hurricane strike, the HING formed a JTF C3 cell composed of the JTF commander, action officers for operations and logistics, a communications team with a mobile satellite communications unit, and a support staff. At approximately 1300 hours on Saturday, 12 September 1992, the JTF C3 cell deployed to Kauai and co-located itself with the Kauai County EOC. The purpose of the cell was to establish and maintain direct coordination and communication with civil authorities on Kauai, State Civil Defense on Oahu, the HING forces on Kauai, and the active component JTF deploying to Kauai. That same day, vehicle mounted mobile satellite communications equipment (MRC-108) from the California Air National Guard arrived on Kauai to support the JTF C3 cell and the County EOC. An active component operations and logistics team, representing the AC JTF based at Lihue Airport, joined the JTF C3 cell and provided significant support throughout the operation.

The JTF C3 cell facilitated the receipt, assignment, execution, and control of validated relief taskings received from Kauai civil authorities.

Airlift: NG inter-island airlift was provided by the C-26 and U-21 fixed wing aircraft of the Troop Command (HIARNG) and the C-130 aircraft of the 199th Fighter Squadron (HIANG) and ANG units from other states.¹⁸ The HIANG C-130 and ANG cargo aircraft from California, Alaska, and Oklahoma flew a total of 873 sorties, moved over 3,400 tons of cargo, and transported nearly 9,600 passengers from 12 September to 10 November 1992. These aircraft evacuated a significant portion of the 8,000 stranded tourists from Kauai to Oahu and transported 46 kidney dialysis patients to Honolulu.

The C-26 and U-21 fixed wing aircraft flew more than 400 missions, carrying both passengers and cargo.

HING airlift on the island of Kauai was provided by UH-1 aircraft from the 193d Attack Helicopter Bn (HIARNG). Missions included command and control, damage assessment, movement of Disaster Medical Assistance Teams (DMAT) to remote areas,

search and rescue, movement of communications personnel to repair UHF repeaters in inaccessible areas, and the transportation of food, supplies, and water to distribution centers and outlying areas.

Full-Service Centers (FSC): On 14 September 1992, soldiers from the 297th Supply and Service Bn (HIARNG) were assigned the mission of establishing and operating five full service centers (FSC) at key locations on the island. These centers were to provide a one-stop distribution site for plastic sheets, tarps, tents, food, and water. FEMA and other relief agencies established disaster assistance centers and feeding centers at the FSCs and provided relief services from these locations as well. All five centers were fully operational at Lihue, Kapaa, Hanapepe, Kalaheo, and Princeville by Thursday, 16 September 1992.

Debris Clearance: The initial focus of the clean-up centered on roadways, public facilities, county buildings, and shelters. These missions were assigned to the engineer and infantry units. The clean-up of the public schools became an early priority for the county. Temporary repairs were completed on roofs and generators were installed at fifteen public schools. The majority of elementary schools opened as scheduled on 22 September 1992. This event was a very important morale boost to the citizens because it marked progress toward normalcy. Children were now able to leave their damaged homes and shelters and, to some degree, continue their academic and social activities.

On 21 September 1992, the HING and AC units began a massive clean-up of debris and garbage still left on the island. This effort was undertaken to reduce injury, infection, and the spread of disease on the island. During "Operation Garden Sweep," the HING concentrated on Lihue while AC soldiers handled the outlying areas. Nearly 500 HIANG volunteers from Oahu deployed to Kauai for the five day clean-up campaign. The airmen, along with workers from the county, state, and civilian contractors, collected and removed nearly 6,500 five-ton truckloads of household garbage and debris.

In October 1992, a second major debris clearing campaign dubbed "Operation Garden Sweep II" was undertaken to remove rubbish from private lands and dwellings. Over 80 tons of debris were removed from Lihue alone, and over 591 five-ton loads were moved to dumps. HING engineers and private contractors, working together under the supervision of the Federal Soil Conservation Service, also cleared Kauai's major streams of debris to reduce the potential for flooding.

Transportation (Surface): Surface transportation was provided by the organic vehicles (2.5 ton and 5.0 ton) of the 29th Bde and HIANG units stationed on Kauai. Missions included the movement of supplies, equipment, and personnel to distribution centers and outlying areas. The timely delivery of wet and dry ice became a constant requirement due to the lack of power for home refrigerators. Although temporary, the ice did provide a limited capacity for the storage of perishable food and medical supplies.

Airfield Operations: HING support consisted of logistical operations at the embarkation airhead at Hickam Air Force Base on Oahu and the debarkation airheads at Barking Sands and Lihue Airport on Kauai. ANG Tactical Airlift Control Element (TALCE) and Mobile Aerial Port (MAP) teams provided loading and unloading support at all of the airheads. At Lihue Airport, elements of the supply and transportation company of the 29th Bde Forward Support Bn (HIARNG) secured a holding area for off-loaded cargo and controlled the distribution of the arriving equipment and supplies.

Engineer: The 298th Engineer Detachment and the 227th Combat Engineer Company of the HIARNG and the 154th Civil Engineer Squadron of the HIANG provided engineering support on the island of Kauai. These units deployed with carpentry tools and chainsaws to do house-to-house repairs for residents who could not fix their own homes. The possibility of thunderstorms made roof repair a top priority tasking. The engineers also completed significant debris clearing operations during the early phases of the operation.

Medical: Two battalion aid stations were established, one at the Kapaa Armory and the other at the Hanapepe Armory. HIARNG medics also went house-to-house to treat injured patients. By 30 September, medical teams had treated over 1,000 patients, mostly for minor injuries, such as cuts and bruises. The Disaster Medical Assistance Teams from FEMA and the hospitals, which were still operational on generator power, provided the majority of medical support to the community.

Power Generation: Before the arrival of FEMA and the Army Corps of Engineers¹⁹ (ACOE) Prime Power generators, the HING provided limited portable generator support to critical county facilities, such as the prison, mortuaries, shelters, and others. Once the FEMA and ACOE equipment arrived, the HING generators were withdrawn to support the HING JTF and other county requirements. By the end of October 1992, the majority of the power grid was restored and operational.

Primary Elections: On Saturday, 19 September 1992, volunteers from the 154th Composite Group (HIANG) provided man-power and logistical assistance to the Kauai County Clerk in support of primary elections. The hurricane had damaged most of the polling places and many county election volunteers were not available. The HIANG airmen set up tents and operated polling sites so that the people of Kauai could exercise their constitutional right to vote. Being on SAD status, the HIANG volunteers could legally provide this support.

Key Lessons Learned

The following paragraphs summarize some of the key lessons learned during Operation Iniki and include comments applicable to the HING, state and county, Federal organizations, and external relief organizations.

Who's In Charge? In accordance with the Stafford Act (Public Law 93-288, As Amended) and the Federal Response Plan for FEMA, the state is in charge of determining priorities for relief support.²⁰ All state and Federal agencies work to support priorities set by the state organization for emergency management. In Hawaii, SCD led by the Adjutant General was in charge of all relief operations. Operation Iniki validated this chain of command.

As a result of the lessons learned from Hurricane Andrew in Florida (24 August 1992) and Typhoon Omar in Guam (29 August 1992), FEMA and the Director of Military Support (DOMS), the U. S. military's executive agent for support to civil authorities, were very anxious to provide support early on. Although this resulted in some county v. Federal coordination issues in the very beginning,²¹ the chain of command was quickly formed and a coordinated joint response effort was effectively implemented.

Adjutant General's Dual Role: Major General Edward V. Richardson's dual responsibility as the Director of SCD and the commander of the HING proved very

effective. This duality eliminated an unnecessary level in the chain of command and streamlined priority determination and mission execution by the HING. More importantly, MG Richardson's military knowledge of the support capabilities of the HING and AC enabled him to match priority taskings to the organizations best suited to carry them out.

Preparation for the Storm: Existing storm tracking technology provided the state an early warning period of approximately six days. Key measures taken during this period were effective in preventing additional casualties and protecting resources needed for the subsequent relief effort. The securing of armories and equipment, the refueling of vehicles and generators, and the filling of water trailers with potable water were key measures. Units were notified and HING members were alerted to the impending disaster early so that they had time to take care of their homes and families before preparing for mobilization.

At the state level, SCD coordinated a joint storm tracking effort involving the National Weather Service, active military aircraft, and HIANG radar sites and provided updated storm information to the population throughout the watch and warning periods. SCD's state wide siren warning system coupled with local TV and radio broadcasts provided sufficient early warning to citizens. SCD's predesignated shelters provided protection to citizens living in identified inundation zones.

As a result of these proactive measures, the loss of life and injuries from Iniki was relatively small and key facilities and equipment were still operational.

Daily Joint Coordination Meetings: Daily meetings, held at the SCD EOC in Honolulu, with senior representatives of all participating Federal and state organizations proved effective in establishing relief priorities and in assigning taskings to the appropriate agencies. These meetings were chaired by the Adjutant General and included senior representatives from FEMA, active military, HING, Small Business Administration, ACOE, state agencies, and Kauai county (via conference call). The meetings reviewed the status of priority taskings, identified problems and determined solutions, and established priorities and taskings for future operations.

The daily meetings proved to be the most effective means of communication and cooperation among all the participants in a very complex operation.

Cooperative Relationships and Attitudes: The positive attitudes displayed by members of all supporting organizations such as FEMA, the active military, the HING, state and county civil authorities, and non-governmental relief agencies were the basis for success in Operation Iniki. The common goal of providing assistance to the people of Kauai was paramount to all of the participating agencies.

Mobilization Policy: After the November 1982 Hurricane Iwa relief mission, it became HING policy to support disaster operations with units from islands and locations not in the disaster area. Guard members residing in the disaster area needed to focus on the immediate welfare of their families and homes. In Operation Iniki, units from the islands of Oahu, Hawaii, Maui, and Molokai were mobilized as the HING main effort. As Kauai HING members became available, they were placed on SAD and joined the relief effort. The Iniki operation validated this mobilization policy.

HING Units Kept on SAD Status: This was essential in allowing HING soldiers and airmen to provide security support to county law enforcement authorities during the emergency phase of the mission. Under SAD status, the HING members are exempt from

the restrictions of the Posse Comitatus Act that prevent military personnel from enforcing state laws while on a Federal active duty status.

Federal Mission Capabilities Enhanced: Operation Iniki clearly enhanced HING capabilities to perform both its Federal and state missions. Functions and tasks applicable to both missions, such as mobilization, active duty processing, deployment, transportation (surface and air), logistics, command and control, communications, maintenance, mission tracking and planning, future operations, medical, and joint operations, were fully exercised in a high stress crisis environment. A General Accounting Office (GAO) study on the DOD's support for Hurricanes Andrew and Iniki and Typhoon Omar found that the readiness of both Federal and National Guard units to perform their Federal mission was not adversely affected by their participation in these disaster relief operations.²² Another GAO study on DOD's support for domestic civil activities found that participation in relatively short term domestic support missions provided significant training benefits. The report cautioned however, that long term support would degrade readiness if significant core training opportunities were missed and critical military assets became unavailable.²³

End State Determination: The termination criteria for the military support mission must be clearly defined as early as possible. Disengagement became a problem during the closing weeks of the operation in late October and early November. County authorities continued to give tasking requests to the HING for clean-up, debris removal, and transportation support, without realizing that county departments and civilian contractors were becoming available to handle these missions themselves. Once local authorities, with continuing assistance from state and federal civilian relief agencies, are able to maintain order and provide essential services to their people, the military mission is complete and should not be prolonged.

Joint Disaster Response Exercises: Operation Iniki validated the importance of joint emergency response exercises involving state and county agencies, the HING, and AC. Such exercises, coordinated and organized by SCD, provided an awareness among the participants of the capabilities of each organization. These exercises fostered interpersonal relationships among the same people that would be working together in actual operations. Since 1992, FEMA and additional AC representatives have actively participated in these annual exercises.

SUMMARY

The purpose of this paper is to familiarize the reader with the unique civil-military relationship of the NG and state in domestic disaster relief operations. The paper covered the unique dual missions of the National Guard, the conditions for its employment, and provided examples of its organization, capabilities and training programs for disaster response. It provided overviews of state and Federal relief agencies and their roles in a state disaster after a Federal emergency is declared. The Hurricane Iniki operation in 1992 was used throughout as a case study to illustrate the roles of the state, NG, FEMA, active component military, and Federal relief agencies in an actual disaster. Finally, some of the more significant lessons learned from the operation were also shared.

In summary, the following key points and observations are provided for consideration by all participants in any future major domestic disaster:

- All participants must recognize that the state is in charge of relief operations within its jurisdiction, even when a Federal disaster declaration is issued by the President. The state determines and coordinates relief priorities for FEMA and its supporting Federal agencies, including the military, and any other relief organization participating in the effort.. The coordination structure used for Iniki shown in Figure 2 combined with the daily joint coordination meetings at SCD proved very effective for Operation Iniki
- As the first military responder to a domestic emergency, the NG has the capability to bring significant personnel and equipment assets to the state's assistance. In order to be most effective, state authorities must be familiar with the NG organization, units, and capabilities within their states. During Operation Iniki this was greatly facilitated by the dual status of the State Adjutant General as the commander of the HING and the Director of SCD.
- NG units should be kept on SAD status while on domestic emergency missions. This status allows the NG to perform a wider variety of security type missions during the critical response phase of an emergency. Under SAD status, the NG is exempt from the provisions of the Posse Comitatus Act that generally restricts federal military personnel from enforcing state laws.
- Joint disaster response exercises must be conducted on a regular basis and must involve state and county emergency management staff, civilian first responders (police, fire, etc.), NG units and commanders, and Federal responders, such as FEMA and the AC military..
- Civil authorities must understand that mobilization of the NG and its equipment involves significant costs in terms of SAD payroll and reimbursements for the use of Federal equipment.²⁴
- The end state criteria of the military involvement, both NG and AC should be negotiated as early as possible. Once the state or county infrastructure, public and private, are able to handle the majority of the requirements, the military component should be released and returned to home stations.
- Finally, a strong relationship between the NG and the AC units stationed within the state must be developed and exercised. These two components bring a significant amount of compatible assets and expertise to civil authorities during a domestic disaster. During Iniki, the support provided by the AC on the island of Kauai was truly outstanding and critical to the success of the overall relief effort.

CONCLUSION

"Isn't it amazing how the worst storms in the last fifty years occur every five years or so?"
--Author, March 1996

The consequences of unpreparedness are clear greater civilian casualties, ruined infrastructures, devastated economies, and long recovery periods.

As we saw in Operation Iniki, there are many key players involved in a domestic disaster relief effort. It is very important that the players understand their roles and are familiar with the capabilities of the other participants so that a coordinated, effective, and timely response is implemented. We must continue to be prepared.

Notes

¹ Stu Glauber, "Insurance Firms Expect Iniki Tab of \$1.6 Billion." Honolulu Advertiser, 25 September 1992

² John R. D'Araujo, Jr., Army National Guard of the United States 1995 Posture Statement (Washington: U. S. Department of the Army, National Guard Bureau, Army National Guard, 1995).

³ The Federal military reserve components, such as the U. S. Army Reserve (USAR) and the U. S. Air Force Reserve (USAFR), have the Federal mission only. Section 673b(b) of title 10 of the U. S. Code presently precludes the activation of reserve component units to provide disaster relief assistance. It states that no unit or member of a reserve component may be ordered to active duty to provide assistance to either the Federal government or a state in time of a serious natural or man-made disaster, accident, or catastrophe.

⁴ An exception would occur when a NG unit is at the scene of an emergency, prior to call-up, and non-response would result in death, injury, or severe property damage. Under this situation, the unit commander is authorized to take immediate action, within his unit's capability, to prevent such an event. For a more detailed list of pre-conditions for NG employment in a state emergency, see Departments of the Army and Air Force, Military Support to Civil Authorities, National Guard Regulation 500-1 (Washington: U. S. Government Printing Office, June 1995), paras 2-2 and 3-6.

⁵ The primary source of data for the organization of the HING comes from the FY 92 (Year-ended 30 September 1992) State of Hawaii Department of Defense Annual Report. This was the organization that responded to Operation Iniki. Since then the HING capability has been significantly increased with a tactical airlift squadron (C-130), an aerial refueling squadron (KC-135), a medium lift company (CH-47), and an aerial medevac unit (UH-60).

⁶ It is noteworthy that one of the infantry battalions is the 100-442d Infantry, a USAR unit. As a Federal Army Reserve unit, the 100-442d does not have a state or domestic mission and was not called up under the Presidential Declaration for Operation Iniki. It is ironic that although the 100-442d Infantry is an integral part of the 29th Infantry Brigade in its Federal war-time mission, it cannot join the rest of the brigade in support of any disaster relief mission. See note 3.

⁷ Hawaii Army National Guard; Plans, Operations, and Military Support Branch (HIARPOMS), Emergency Operations Plan (Honolulu, Hawaii, HIARPOMS, December, 1994), Annex A.

⁸ Federal Emergency Management Agency, Federal Response Plan (For Public Law 93-288, As Amended) (Washington: U. S. Government Printing Office, April 1992), 11-12.

⁹ During the 1994 season, for example, thirteen tropical storms and hurricanes, of which two were classified as "super" hurricanes with sustained speeds in excess of 156 miles per hour, threatened Hawaii. Although none of these storms and hurricanes hit the state, extensive flooding and storm surge damage resulted on all islands. Hurricane "Emilia" did move past Hawaii and hit Johnston Island, causing major damage to the island and its facilities.

¹⁰ Interview with Mr. Melvin Nishihara, Hurricane Planner, State of Hawaii Civil Defense, 19 January 1996.

¹¹ Myles Ludwig, Kauai in the Eye of Iniki (Hanalei, Hawaii: Inter-Pacific Media Publication, 1992), Front Jacket.

¹² The Honolulu Advertiser, Hurricane Iniki (Honolulu, Hawaii: Mutual Publishers, 1992), 17.

¹³ Hawaii Army National Guard, Hurricane Iniki After-Action Report, Hawaii National Guard Disaster Response Operations on Kauai, 6 September to 6 November 1992 (Honolulu, Hawaii: HIARPOMS, 1993) Part I - Memorandum, pages 1-2 and Part II - Executive Summary, pages 2-3.

¹⁴ Public Affairs Office, U. S. Army Pacific, The Story of JTF Hawaii: 11 September to 6 November 1992 (Ft. Shafter, Hawaii: Public Affairs Office, 1993) 4. During Operation Iniki, the active component (AC) military provided extensive and critical support to the relief operation. Organized as a JTF under the command of LTG Johnnie Corns, the USARPAC commander, the active component soldiers, sailors, airmen and marines responded quickly and effectively to provide disaster assistance. As examples of their support, AC helicopters and fixed wing aircraft flew a total of 1,388 sorties, moving more than 7,800 tons of cargo and 8,000 passengers. AC ships made 31 voyages, carrying more than 275,975 square feet of cargo and 599 passengers. AC strength on Kauai peaked at 3,693 on 26 September 1992. On 6 October 1992, after three weeks of providing support, the AC JTF was disestablished and redeployed to Oahu.

¹⁵ Hawaii Army National Guard, Part II - Executive Summary, p. 3.

¹⁶ Hawaii Army National Guard, Part II - Executive Summary, pp. 2-6. Data based on compilations from HING unit daily logs and personal observations of author during Operation Iniki while serving on Kauai as JTF Operations Officer.

¹⁷ Under the current Emergency Operations Plan, the county and state civil authorities may have tasking authority over HING units, however all HING members come under the command authority of the established HING chain of command. The HING unit commander determines if his unit has the capability to undertake a task assigned by the civil authority.

¹⁸ ANG units from California, Alabama, Washington, Oregon, Oklahoma, Alaska, West Virginia, and Texas provided extremely valuable support with aircraft, airfield support operations, engineer assistance, and logistical support.

¹⁹ The U. S. Army Corps of Engineers (ACOE) Pacific Ocean Division and its Prime Power Engineer Bn from Ft. Belvoir brought a tremendous amount of structure repair and emergency power generation capabilities to Operation Iniki. Designated as the proponent agency for ESF 3 Public Works and Engineering in the FEMA Response Plan, the ACOE's contribution to Kauai was tremendous. For a more detailed review of the ACOE and its operation on Kauai see the Department of the Army, Pacific Ocean Division, Corps of Engineers, After-Action Report for Hurricane Iniki, dated 27 January 1993.

²⁰ Federal Emergency Management Agency, 5.

²¹ Kauai County officials initially turned away an active component command and control unit that deployed to Kauai on Saturday, 12 September 1992. This unit deployed to Kauai without a request from either the state or county and was met with some consternation by county officials. This reaction was essentially understandable due to a previous unfortunate experience between Kauai County and the military. Ten years earlier, during the aftermath of Hurricane Iwa during November 1982, the U. S. Navy offered to provide electrical power from one of its nuclear submarines. The hook up was not feasible and power could not be provided. County officials were very surprised when they subsequently received a substantial bill for the cost of the submarine's deployment.

²² U. S. General Accounting Office, Report to the Chairman, Subcommittee on Readiness, Committee on Armed Services, House of Representatives, Disaster Assistance DOD's Support for Hurricanes Andrew and Iniki and Typhoon Omar, June 1993, 6, 24.

²³ U. S. General Accounting Office, Report to the Ranking Republican, Committee on Armed Services, House of Representatives, DOD Budget Department of Defense Support for Domestic Civil Activities, November 1993, 4-5.

²⁴ In a Federal disaster however, FEMA will reimburse the state for a percentage of the costs (normally 75%) incurred by the state in responding to the emergency. This includes the costs of the NG on state active duty.

LIST OF ABBREVIATIONS AND ACRONYMS

AC	Component (active duty military)
ACOE	Army Corps of Engineers
ACS	Air Control Squadron
ACWS	Aircraft Control and Warning Squadron
AFB	Air Force Base
ANG	Air National Guard
ARC	American Red Cross
ARNG	Army National Guard
ATCF	Air Traffic Control Flight
Bn	Battalion
Bde	Brigade
C-130	Four engine fixed wing cargo aircraft
C3	Command, Control, and Communication
CAANG	California Air National Guard
CAMS	Consolidated Aircraft Maintenance Squadron
CCGP	Combat Communication Group
CCS	Combat Communication Squadron
CD	Civil Defense
CES	Civil Engineering Squadron
Cdr	Commander
CH-47	Twin engine cargo helicopter
COL	Colonel
COMPG	Composite Group
DAC	Disaster Assistance Center
DCO	Defense Coordinating Officer
Dept	Department
DOD	Department of Defense
DOMS	Director of Military Support
DMAT	Disaster Assistance Medical Teams
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FM	Frequency Modulation

FIGURE 1

LIST OF ABBREVIATIONS AND ACRONYMS

FS	Fighter Squadron
FSC	Full Service Center
HIANG	Hawaii Air National Guard
HIARNG	Hawaii Army National Guard
HING	Hawaii National Guard
HQ, STARC	Headquarters, State Area Command (HIARNG State Headquarters)
JTF	Joint Task Force
MAP	Mobile Aerial Port
Medevac	Medical Evacuation
METL	Mission Essential Task List
MJG	Major General
MSCA	Military Support to Civil Authorities
MSS	Mission Support Squadron
MP	Military Police
MPH	Miles Per Hour
MRC-108	Mobile vehicle mounted satellite communications equipment
NG	National Guard
NGO	Non-Governmental (Relief) Organizations
NM	Nautical Miles
NWS	National Weather Service
POMSO	Plans, Operations, Military Support Officer
SAD	State Active Duty
SCD	State Civil Defense
Sep	Separate
SPF	Security Police Flight
Sqdrn	Squadron
SCO	State Coordinating Officer
SVF	Services Flight
TACSAT	Tactical Satellite Communication Equipment
TALCE	Tactical Airlift Control Element
TD	Tropical Depression
TF	Task Force

FIGURE 1

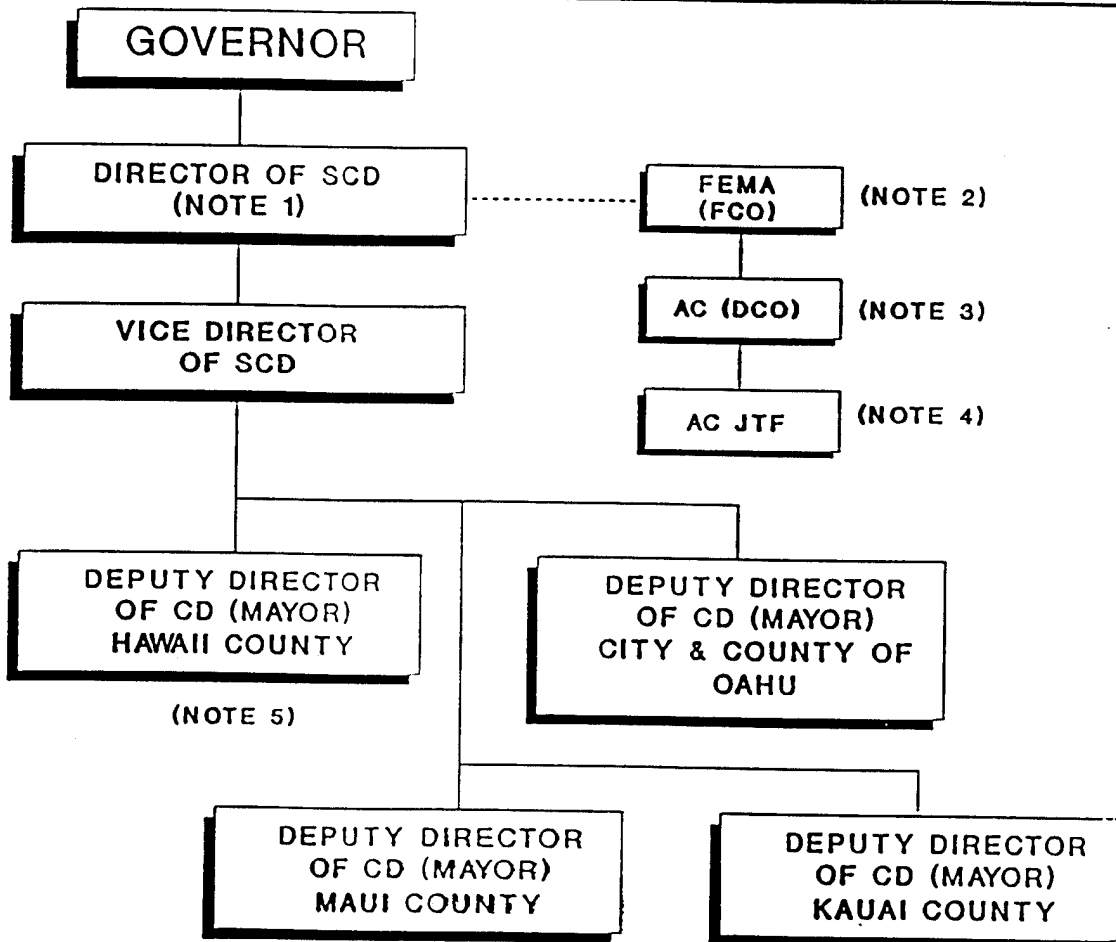
LIST OF ABBREVIATIONS AND ACRONYMS

UH-1	Cargo utility helicopter (Single engine)
UH-60	Cargo utility helicopter (Twin engine)
USAFR	United States Air Force Reserve
USAR	United States Army Reserve
WF	Weather Flight

FIGURE 1

SCD STRUCTURE

DURING EMERGENCY OPERATIONS



1. IN HAWAII, TAG IS DUAL HATTED AS THE ADJUTANT GENERAL AND AS THE DIRECTOR OF STATE CIVIL DEFENSE. TAG OR VICE-DIRECTOR OF SCD MAY BE THE STATE COORDINATING OFFICIAL (SCO)
2. FEDERAL COORDINATING OFFICER (FCO) IS FEMA REPRESENTATIVE
3. DEFENSE COORDINATING OFFICER (DCO) IS ACTIVE COMPONENT (AC) COORDINATOR FOR RELIEF SUPPORT VIA FCO AND FEMA
4. ACTIVE COMPONENT JOINT TASK FORCE (JTF) IS DEPLOYED, UPON STATE REQUEST, TO PROVIDE SUPPORT TO DISASTER AREA
6. MAYORS ARE DEPUTY DIRECTORS OF CD FOR THEIR RESPECTIVE COUNTIES

Plans, Operations, & Military Support

FIGURE 2

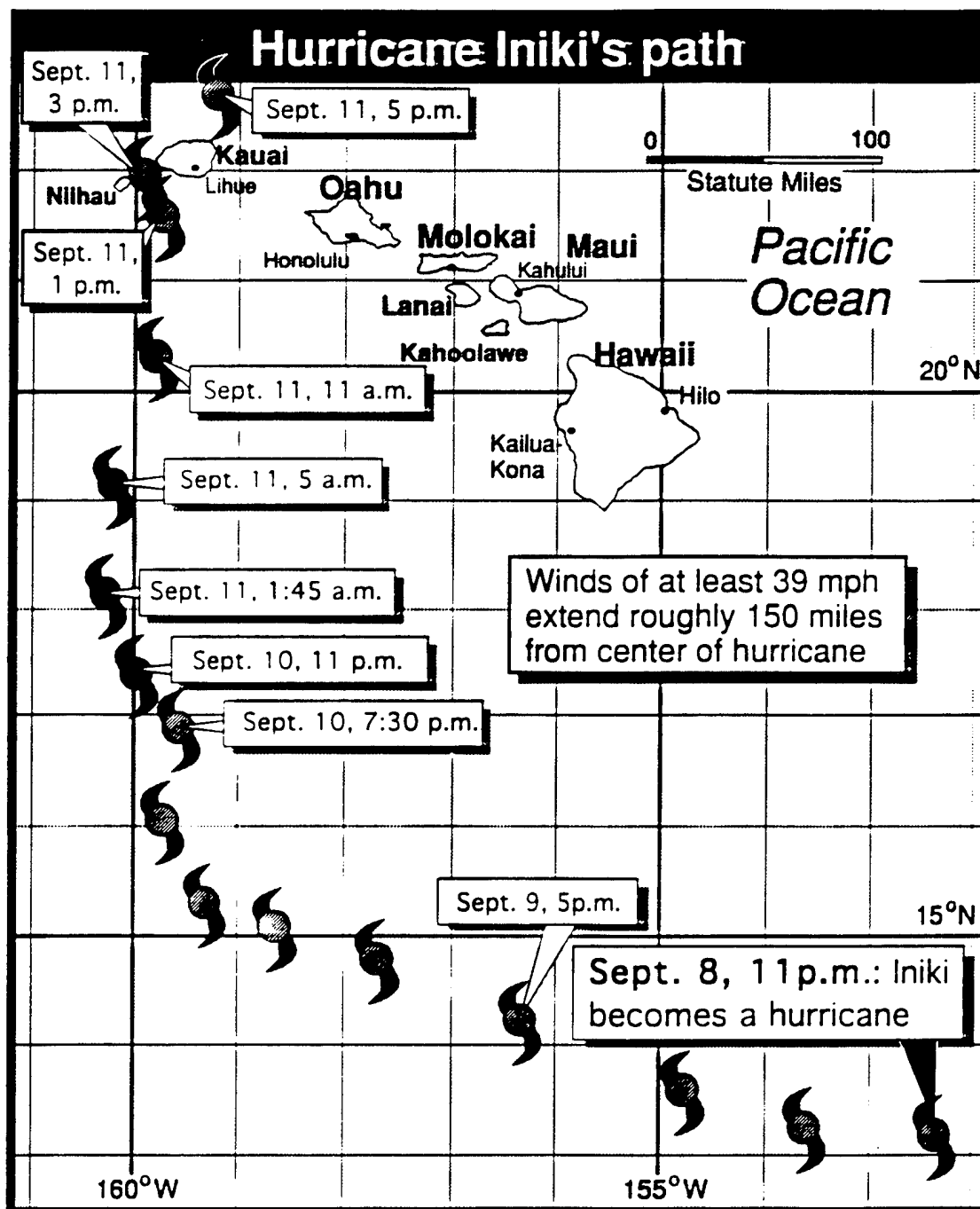


FIGURE 3

HURRICANE INIKI

ISLAND OF KAUAI

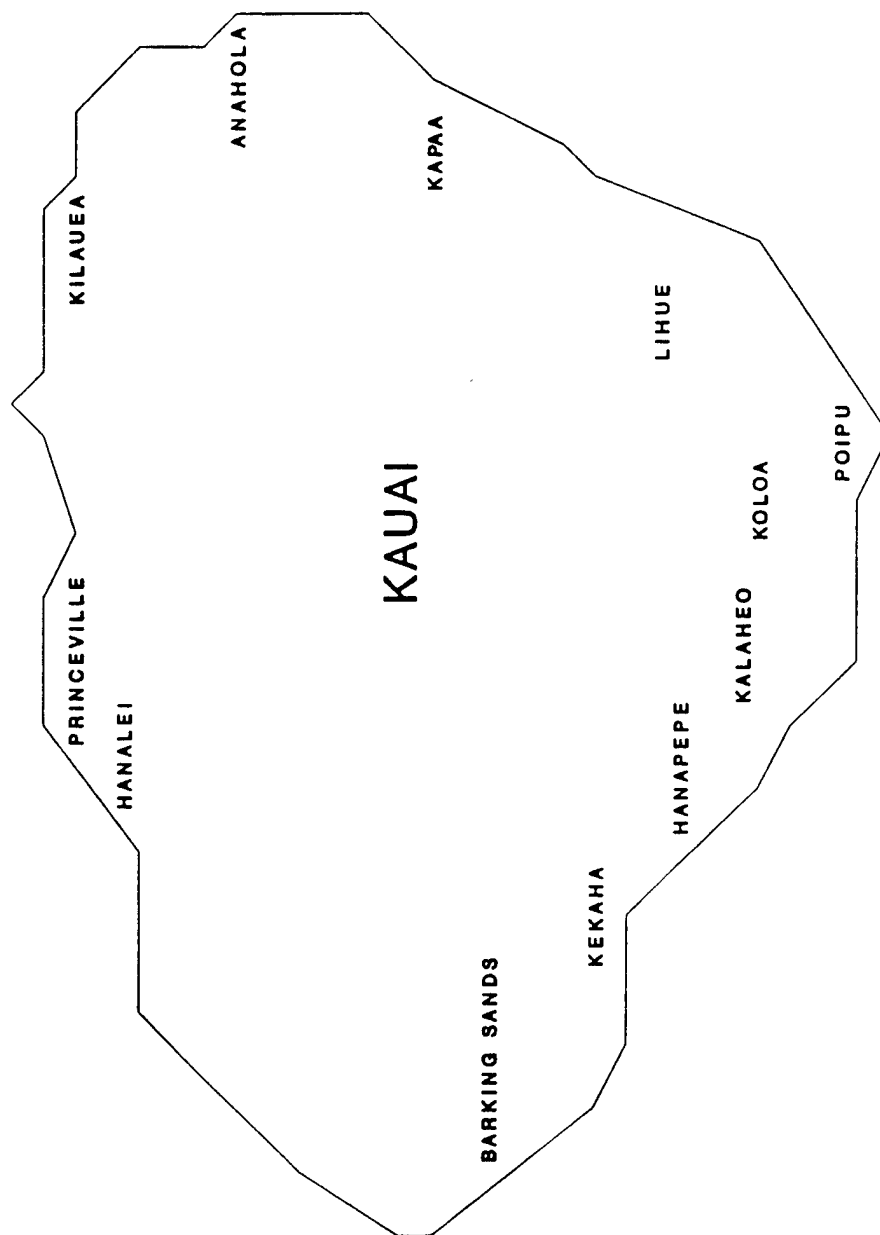


FIGURE 4

BIBLIOGRAPHY

John R. D'Araujo, Jr. Army National Guard of the United States 1995 Posture Statement. Washington: National Guard Bureau, 1995.

Departments of the Army and the Air Force, Military Support to Civil Authorities. National Guard Regulation 500-1. Washington: National Guard Bureau, June 1995.

Department of the Army, Pacific Ocean Division, Corps of Engineers, After-Action Report for Hurricane Iniki. Honolulu, Hawaii: 27 January 1993.

Federal Emergency Management Agency, Federal Response Plan (For Public Law 93-288, As Amended). Washington: U. S. Government Printing Office, April 1992.

Glauberman, Stu. "Insurance Firms Expect Iniki Tab of \$1.6 Billion," Honolulu Advertiser, 25 September 1992.

Hawaii Army National Guard. Hurricane Iniki After-Action Report, Hawaii National Guard Disaster Relief Operations on Kauai, 6 September to 6 November 1992. Honolulu, Hawaii: Hawaii Army National Guard, Plans, Operations, and Military Support Branch (HIARPOMS), 1993.

Hawaii Army National Guard; Plans, Operations, and Military Support Branch (HIARPOMS), Emergency Operations Plan (Draft). Honolulu: HIARPOMS, December, 1994.

Honolulu Advertiser. Hurricane Iniki. Honolulu, Hawaii: Mutual Publishing, 1992.

Ludwig, Myles. Kauai in the Eye of Iniki. Hanalei, Hawaii: Inter-Pacific Media Publication, 1992.

Nishihara, Melvin, Hurricane Planner - State of Hawaii Civil Defense. Telephone interview by author, 19 January 1996. Notes.

Public Affairs Office, U. S. Army Pacific. The Story of JTF Hawaii: 11 September to 6 October 1992. Honolulu, Hawaii: Public Affairs Office, USARPAC, 1993.

State of Hawaii Department of Defense. Fiscal Year 1993 Annual Report. Honolulu, Hawaii: Public Affairs Office (HIPAO), 1993.

BIBLIOGRAPHY

United States General Accounting Office. Report to the Chairman, Subcommittee on Readiness, Committee on Armed Services, House of Representatives. Disaster Assistance DOD's Support for Hurricanes Andrew and Iniki and Typhoon Omar (B-253026). Washington: U. S. Government Printing Office, 18 June 1993.

United States General Accounting Office. Report to the Ranking Republican, Committee on Armed Services, House of Representatives. DOD Budget Department of Defense Support for Domestic Civil Activities (B-254252). Washington: U. S. Government Printing Office, 26 November 1993.

Waite, David and Tenbruggencate, Jan. "Kauai Mayor: Hurricane Left Total Destruction," Honolulu Star Bulletin and Advertiser, 13 September 1992.